Case 3179

Halacarus Gosse, 1855, *H. ctenopus* Gosse, 1855 and *Thalassarachna* Packard, 1871 (Arachnida, Acari): proposed conservation of usage of the names by the designation of a neotype for *H. ctenopus*

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Abstract. The purpose of this application is to conserve the specific name of *Halacarus ctenopus* Gosse, 1855 in its accustomed usage. *H. ctenopus* is the type species of *Halacarus* Gosse, 1855, a widespread genus of microscopic marine mites. The name *Halacarus* has been used continuously for 146 years. However, the interpretation of the genus and *H. ctenopus* has been based on Lohmann (1893) who applied Gosse's name to a different species. Gosse's taxon is now placed in *Thalassarachna* Packard, 1871 under the name *T. basteri* (Johnston, 1836). It is proposed that a neotype of *H. ctenopus* be designated in the taxonomic sense of Lohmann (1893) in order to conserve usage of the names *Halacarus, H. ctenopus* and *Thalassarachna.*

Keywords. Nomenclature; taxonomy; Acari; HALACARIDAE; *Halacarus*; *Halacarus ctenopus*; *Thalassarachna*; *Thalassarachna basteri*; marine mites.

1. In 1855 Gosse introduced the name *Halacarus* for a genus of microscopic marine mites. He presented a short diagnosis and described two species, *H. rhodostigma* and *H. ctenopus*, both collected on the shores of Great Britain. The type species was not originally designated. Gosse (1855, pp. 28–29, pl. 3, figs. 6–10) described and figured *H. ctenopus* as a species with a body length of about 800 µm and a frontal spine projecting over the gnathosoma; the third palpal segment had a stout spur–like spine; the genua of the legs were shorter than the tibiae and telofemora and the tarsi ended with a pair of strongly pectinated claws. Gosse's material is not in the London Natural History Museum and is presumably not in existence.

2. Murray (1876, p. 205) based the nominal family HALACARIDAE on *Halacarus*. All the species mentioned in this application are considered to belong to this family, but as mentioned below their generic and specific names are a source of confusion.

3. Lohmann (1893) presented a detailed 'redescription' of what he considered to be *Halacarus ctenopus*. The description was based on material from algae taken off Bermuda; this material is in neither Kiel nor Hamburg, where Lohmann lived and worked, and must be presumed lost. He described a species with a length of 420 µm, a wide frontal spine, large gland pores and legs with genua which are longer than the tibiae and telofemora. Subsequent reference to *Halacarus ctenopus* (e.g. Lohmann, 1901; Viets, 1927b, 1936; André, 1946; Newell, 1947; Green & MacQuitty, 1987) is either directly based on the description presented by Lohmann (1893) or describes a species obviously conspecific with *Halacarus ctenopus* sensu

Lohmann (1893). This species is not conspecific or even congeneric with the species described by Gosse.

4. Lohmann (1907) split the genus *Halacarus* into two groups ('Artenkreise'). One of the groups, the '*Balticus*–Gruppe', includes the species in which the genua are shorter than the tibiae and telofemora (i.e. *Halacarus* sensu Gosse, 1855). The other, the '*Ctenopus*–Gruppe', was defined as having the segment four of legs I to IV as long as, or longer than, segments three and five. Following Lohmann, Viets (1927a) established the subgenera *H.* (*Halacarellus*), designating as the type species *Halacarus balticus* Lohmann, 1889, and *H.* (*Halacarus*), with the type species stated to be *H. ctenopus* Gosse, 1855. *Halacarus* (*Halacarus*) was defined as having long genua on legs I and II, as for *H. ctenopus* sensu Lohmann (1893) but not as originally described by Gosse (1855).

5. In the past half century, 49 new species have been referred to the genus *Halacarus* (sensu Lohmann, 1893); all have long genua on leg I. Of these 49 species, 48 are now treated as congeneric with *Halacarus ctenopus* sensu Lohmann (1893), but none with *H. ctenopus* as originally described by Gosse (1855). Examples of papers describing species are André (1946); Newell (1947, 1971, 1984); Sokolov (1952); Bartsch (1983; 1993a, b); Green & MacQuitty (1987). A list of the species published between 1947 and 1996 has been given to the Commission Secretariat.

6. *Halacarellus* Viets, 1927a was treated as a subjective synonym of *Thalassarachna* Packard, 1871 by Newell (1945). He considered the type species of *Thalassarachna* (*T. verrillii* Packard, 1871, p. 108, by original designation) to be a synonym of *Acarus basteri* Johnston, 1836 (pp. 353–355, figs. 51 a, b) and recognized an affinity between it and *Halacarellus balticus*. I (Bartsch, 1997) disagreed with Newell (1945) and considered *Halacarellus balticus* not to be congeneric with *T. basteri*; accordingly, I reintroduced *Halacarellus* as a valid generic name.

7. Gosse (1855, pp. 28–29, pl. 3, figs. 6–10) based his description of *Halacarus ctenopus* on a single specimen collected at Weymouth, Dorset, U.K. As mentioned in para. 1 above the holotype is unknown, but the original figures are sufficient to recognise the species. The name *Thalassarachna basteri* (Johnston, 1836) has been consistently used for the species represented by Gosse's figures since Newell (1945).

8. Strict application of the Principle of Priority would require replacement of *ctenopus* Gosse, 1855 by *basteri* Johnston, 1836 and *Halacarus*, with *H. basteri* as the valid name of its type species, would displace *Thalassarachna*. New names for *Halacarus* as currently used and for *Halacarus ctenopus* sensu Lohmann would, therefore, also be required.

9. In accordance with Article 75.6 of the Code stability would be maintained by the designation of a neotype for *Halacarus ctenopus* Gosse, 1855 that is consistent with prevailing usage of the generic and specific names. Therefore, I propose a male of *Halacarus ctenopus* identified and described by Newell (1947, p. 83), No 44–211–27, United States National Museum of Natural History, (Collection I.M. Newell) from Soldier's Key, Biscayne Bay, Florida, U.S.A., as neotype of the nominal species *Halacarus ctenopus* Gosse, 1855; this specimen was collected from *Halimeda opuntia*, July 1st, 1944, coll. H.W. Baird,

10. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary power to set aside all previous type fixations for *Halacarus ctenopus* Gosse, 1855 and to designate USNM No. 44–211–27 referred to in para. 9 above as the neotype;

(2) to place on the Official List of Generic Names in Zoology the following names:
  (a) *Halacarus* Gosse, 1855 (gender: masculine), type species *Halacarus ctenopus* Gosse, 1855 by subsequent designation (Viets, 1927a);
  (b) *Thalassarachna* Packard, 1871 (gender: feminine), type species *Thalassarachna verrillii* Packard, 1871 by original designation (a junior subjective synonym of *Acarus basteri* Johnston, 1836);

(3) to place on the Official List of Specific Names in Zoology the following names:
  (a) *ctenopus* Gosse, 1855, as published in the binomen *Halacarus ctenopus* Gosse, 1855 and as defined by the neotype designated in (1) above;
  (b) *basteri* Johnston, 1836, as published in the binomen *Acarus basteri* Johnston, 1836 (senior subjective synonym of the specific name of *Thalassarachna verrillii* Packard, 1871, the type species of *Thalassarachna* Packard, 1871).

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Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e–mail: iczn@nhm.ac.uk).